



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,741	11/04/2003	Kyung Man Kim	8733.888.00-US	6407
30827	7590	09/08/2005		
MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006			EXAMINER EVANISKO, LESLIE J	
			ART UNIT 2854	PAPER NUMBER

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/699,741	KIM, KYUNG MAN
	Examiner	Art Unit
	Leslie J. Evanisko	2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 04 November 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) _____ is/are rejected.
- 7) Claim(s) 1-9 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 04 November 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

EX-PARTE QUAYLE ACTION

1. This application is in condition for allowance except for the following formal matters:

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. The drawings are objected to because of the following informalities:

In Figures 3 and 4, it is noted that reference numeral **6** is underlined. However, MPEP 608.02 and 37 CFR 1.84(q) state that reference numerals can be underlined only to indicate the surface or cross-section on which they are placed. Since it appears that reference numeral **6** is not designating a surface or cross-section, it is suggested that the underlining be deleted and a lead line (perhaps with an arrow at the end as set forth in 37 CFR 1.84(r)) be added to the reference numeral to associate the numeral with the appropriate structural element shown in the Figures.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even

if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: In Figures 3 and 4, reference numeral **14** has not been described in the specification. In Figures 9A and 9B, reference numeral **44** has not been described in the specification. To correct the problem with Figures 9A and 9B, it is suggested that numeral **44** in the Figures be deleted and replaced with reference numeral **36**, since it appears that this numeral is designating the resin plate as described in paragraph [0049] on page 11 of the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: the hemispherical shape grooves **60** described in paragraph [0046] on page 10 have not been illustrated in the Figures.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after

the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d).

If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

6. Claims 1-9 are objected to because of the following informalities:

With respect to claim 1, the claim language is somewhat unclear and perhaps inconsistent with how the size/width relationship between the protrusions and pixels is shown in the Figures and described in the specification. In particular, as shown by the Figures (Fig. 8 in particular) it is noted that each of the protrusions of the concave-convex pattern has a width of about 20%-90% of a pitch of each of the pixels of the pixel pattern with a designated gap therebetween. See, also paragraphs [0012], [0015], [0018], [0045]-[0046], [0049]. The claim language as currently written is somewhat confusing as to whether the width and pitch relationship recited refers to the entire concave-convex pattern on the roller and the entire pixel pattern applied to the substrate. Therefore, to better clarify the relationship of applicant’s invention in the claim language, it is suggested that the claim language in the last two lines of claim 1 be amended to include language such as the following: --
...including protrusions each having a width of about 20-90% of a pitch

of each pixel of the pixel pattern with a designated gap therebetween.--

(emphasis added to show changes to language).

Similarly, with respect to claim 2, it is suggested that the phrase --each protrusion of-- be inserted after "of" in line 1 and the phrase --each pixel of-- be inserted after "of" in line 2. Again, these changes would be made to better clarify the size relationship between the protrusion and pixels as set forth by applicant in the disclosure.

With respect to claim 4, the phrase "the light emitting material" has no proper antecedent basis since no light emitting material was previously recited. To correct this problem, it is suggested that the term "light emitting" be deleted and replaced with --organic-- to use consistent language throughout the claims and insure all terms have proper antecedent basis.

With respect to claim 5, line 2, it is suggested that the phrase --the pixel patterns" be deleted and replaced with --each pixel of the pixel pattern--.

With respect to claim 6, similar to the changes made to claim 1, it is suggested that the term --each-- be inserted after "pattern" in line 3 and the phrase --of a pixel-- be inserted after "pixel" in line 4.

With respect to claim 7, it is suggested that the phrase --each of-- be inserted after "of" in line 1 and the phrase --each pixel of-- be inserted after "of" (third occurrence) in line 2.

Appropriate correction and/or clarification is required.

Allowable Subject Matter

7. Claims 1-9 are objected to for the reasons set forth above, but would be allowable if rewritten to overcome those objections to the satisfaction of the Examiner.
8. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach or fairly suggest a fabricating apparatus and method having all of the recited structure (or method steps) in combination with and particularly including, the concave-convex pattern having protrusions each having a width of about 20%-90% of a pitch of each pixel of the pixel pattern with a designated gap therebetween.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lee et al. (US 2002/0047560 A1), Bae et al. (US 2004/0124781 A1), and Fujita (US 6,582,504) each show a fabricating apparatus and method having obvious similarities to the claimed subject matter, though none teach or fairly suggest the specific width relationship between each protrusion and pixel as recited.

10. Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Leslie J. Evanisko** whose telephone number is (571) 272-2161. The examiner can normally be reached on M-Th 7:30 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H. Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Leslie J. Evanisko
Primary Examiner
Art Unit 2854

lje
September 2, 2005